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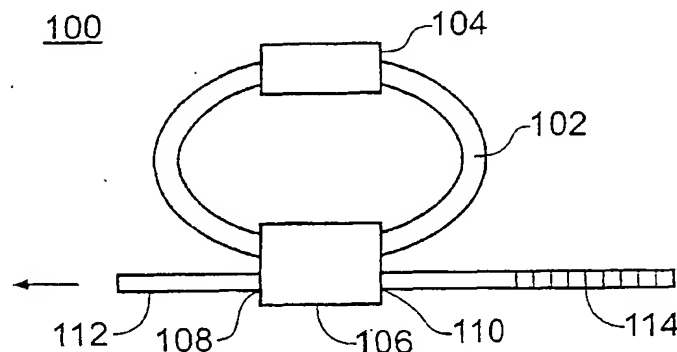
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(54) Title: TUNABLE RING LASER WITH EXTERNAL GRATING OPERATING IN A SINGLE MODE



(57) Abstract: A tunable lasing device (100) comprising a ring-shaped laser cavity (102), an optical gain element (104), a bi-directional output coupler (106) and a frequency selection means (114). The frequency selection means is generally a grating with a refractive index that determines a grating reflection frequency. Single mode laser operation is achieved where a cavity mode frequency of the ring-shaped laser cavity coincides with a grating reflection frequency. The refractive index of the grating can be modified by the injection of a variable current. In this way, the lasing frequency can be rapidly tuned between cavity mode frequencies.

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